

Appl. No. 10/054,623
Reply to Office Action of May 03, 2006
Docket. No.: 2102299-991110

IN THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) ~~[[A]]~~ In a system for visually building multi-channel applications, said system a computer-readable medium having computer-executable modules comprising:

a first module adapted to allow a developer to visually design workflow describing a multi-channel application capable of operating over a plurality of channels, the workflow comprising a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application, wherein said workflow comprises a plurality of states and a plurality of transitions, wherein each layer includes states and transitions common to at least one channel of said multi-channel application;

a second module adapted to allow a developer to design views for said multi-channel application; and

a third module adapted to allow a developer to integrate data sources within said multi-channel application.

2. (Currently Amended) The system computer-readable medium of claim 1, further comprising:

an interactive development environment for allowing a developer to interact with said first, second and third modules to design said multi-channel application.

3. (Currently Amended) The system computer-readable medium of claim 2 wherein said interactive development environment comprises a graphical user interface for allowing a developer to visually interact with said first, second and third module.

4. (Currently Amended) The system computer-readable medium of claim 1 wherein said system is adapted to allow a developer to design multi-modal applications.

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5. (Cancelled)

6. (Currently Amended) The ~~system~~ computer-readable medium of claim [[5]] 1, wherein said system is adapted to allow a developer to design multi-channel applications including at least two channels selected from the group comprising voice channels, web channels, and wireless web channels.

7. (Currently Amended) A computer system for visually building multi-channel applications, comprising:

a graphical user interface (GUI) comprising a user interface selection device and a display for displaying an interactive development environment for visually designing workflow describing a multi-channel application capable of operating over a plurality of channels, said environment being adapted to allow a developer to independently design said workflow in a plurality of layers, wherein each layer includes states and transitions common each of said layers corresponding to at least one channel of said multi-channel application.

8. (Currently Amended) The computer system of claim 7 wherein said GUI is used ~~interactive development environment provides a graphical interface~~ for independently displaying and designing said plurality of layers.

9. (Currently Amended) The computer system of claim 8 wherein said GUI interface is adapted to independently display a root layer including states common to each of said channels of said multi-channel application, and to allow a developer to visually design said root layer.

10. (Currently Amended) The computer system of claim 9 wherein said GUI graphical interface is further adapted to independently display a voice layer including states common to a voice channel of said multi-channel application, and to allow a developer to visually design said voice layer.

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11. (Currently Amended) The computer system of claim 10 wherein said GUI graphical interface is further adapted to independently display a visual layer including states common to a visual channel of said multi-channel application, and to allow a developer to visually design said visual layer.

12. (Currently Amended) The computer system of claim 11 wherein said GUI graphical interface is further adapted to display combinations of said root, voice and visual layers.

13. (Currently Amended) A computer system for visually building a multi-channel application capable of operating over a plurality of channels applications, comprising:

a graphical user interface adapted to allow a user to visually build a single workflow describing a multi-channel application capable of operating over a plurality of channels, the workflow comprising a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application, wherein said single workflow comprises a plurality of states and a plurality of transitions, wherein each layer includes states and transitions common to at least one channel of said multi-channel application; and

a module for converting said visually built workflow into a markup language.

14. (Currently Amended) The computer system of claim 13 wherein said markup language comprises an XML-based language.

15. (Cancelled).

16. (Currently Amended) The computer system of claim 13 wherein said graphical user interface is adapted to allow a user to visually build a single workflow for a multi-channel application capable of operating in a plurality of modes.

17. (Currently Amended) The computer system of claim 13 further comprising:
a second graphical user interface adapted to allow a developer to build views of multi-channel application; and

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a second module adapted to convert said built views into a markup language.

18. (Currently Amended) The computer system of claim 17 wherein said markup language comprises an XML-based language.

19. (Currently Amended) A method of building ~~[[an]]~~ a multi-channel application, comprising the steps of:

providing a visual development environment;

designing an application workflow within said visual development environment in a plurality of layers, said application workflow ~~describing certain business logic and~~ comprising a plurality of states and a plurality of transitions, wherein said application workflow describes a multi-channel application capable of operating over a plurality of channels, wherein the application workflow comprises a plurality of layers, wherein each layer includes states and transitions common ~~of said layers corresponds~~ to at least one channel of said multi-channel application;

linking said states; and

converting said application workflow into an application descriptor for delivering the application over at least one of the plurality of channels.

20. (Original) The method of claim 19 further comprising the step of:
designing a presentation of said application within said visual development environment.

21. (Original) The method of claim 20 further comprising the step of:
internationalizing said presentation of said application within said visual development environment.

22. (Original) The method of claim 21 further comprising the step of:
integrating data sources into said application by use of said visual development environment.

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23. (Cancelled)

24. (Cancelled)

25. (Original) The method of claim 19 further comprising the step of:
componentizing a plurality of said states and transitions into a reusable sub-model
within said visual development environment.

26. (Original) The method of claim 21 further comprising the step of:
packaging said application workflow into a reusable component within said visual
development environment.